

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-6 (cancelled).

7. (Original) An actuator comprising:

a first piezoelectric device serving as a driving source when a driving signal is applied in a polarization direction thereof;

a second piezoelectric device disposed for crossing the first piezoelectric device at a predetermined angle and for serving as a driving source when a driving signal is applied in a polarization direction thereof;

a driving member provided at a crossing point of the first and second piezoelectric devices and connected to top ends of the first and second piezoelectric devices;

two driving units respectively supplying driving signals to the first and second piezoelectric devices including the following three elements (a), (b) and (c):

(a) a waveform generator for generating a signal varying corresponding to the passage of time;

(b) a first driver for generating a first voltage signal having a maximum voltage smaller than a voltage of inversion of polarization of the piezoelectric device by using the signal from the waveform generator, and for applying the first voltage signal to the piezoelectric device in the polarization direction; and

(c) a second driver for generating a second voltage signal having a maximum voltage smaller than the voltage of inversion of polarization of the piezoelectric

device and the same polarity as that of the first driving signal by using the signal from the waveform generator, and for applying the second voltage signal to the piezoelectric device in a direction opposite to the polarization direction; and

a first controller for applying the driving signals from the driving units to the first and second piezoelectric devices with a predetermined phase difference so that the driving member is moved for trailing an ellipse or a circle and a driven object contacting to the driving member is mechanically driven.

8. (Original) The actuator in accordance with claim 7, wherein the second driving signal has a waveform which is an inversion of a waveform of the first driving signal.

9. (Original) The actuator in accordance with claim 7, wherein the waveform of the first and second driving signals are a sine wave.

10. (Original) The actuator in accordance with claim 7, wherein the waveform of the first and second driving signals are a sawtooth wave in which the inclination in a rising up portion is different from that in a falling down portion.

11. (Original) The actuator in accordance with claim 7, wherein the first driver and the second driver respectively includes an amplifier for amplifying the signal from the waveform generator.

Claims 12-26 (cancelled).